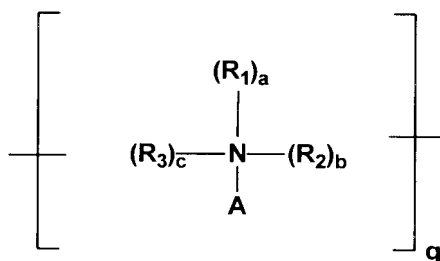


In the Claims:

Please amend the claims as follows:

30. (Once amended) A composition for use in synthesizing a nucleic acid molecule, comprising one or more enzymes having nucleic acid polymerase activity and one or more isolated compounds having a chemical formula selected from the group consisting of formula I or formula II, or a salt or derivative thereof, wherein said compound is not betaine:

Formula I:



wherein A is $(R_4)_d - \overset{|}{\text{C}}R_5 - X$;

wherein X is $\text{---}(\text{CR}_6)_m\text{---}(\text{Y})_e$;

where N is positively charged;

wherein $q = 1$ to 100,000, wherein when $q = 2$ to 100,000 each monomer of formula I may be the same as or different from the other monomers of formula I;

wherein Z may be the same as or different from Y;

wherein each Y and Z are independently selected from the group consisting of -OH, -NH₂, -SH, -PO₃H, -CO₂H, -SO₃H and hydrogen;

wherein f is an integer from 0 to 2, m is an integer from 0 to 20 and e is an integer from 0 to 2;

wherein R₄, R₅, and R₆ may be the same or different and are independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, amino, mercaptan, thiol, halo, nitro, nitrilo, hydroxy, hydroxyalkyl, hydroxyaryl, phosphato, alkoxy, oxide, ether, ester (alkanoyloxy), carboxy, carbonyl, sulfonyl, sulfonic and amido groups, and d is an integer from 0 to 2;

wherein a, b, and c are independently an integer from 0 to 1, with the proviso that no more than two of a, b, and c are zero;

wherein R₁, R₂ and R₃ may be the same or different and are independently selected from the group consisting of:

a) =O and;

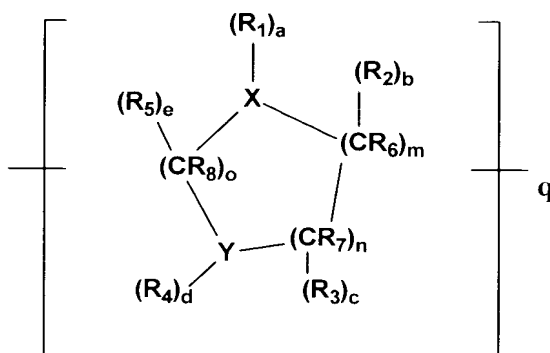
b) (W)_g

|

-(CR₇)_n ;

wherein each R₇ and W may be the same or different and are independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, amino, thiol, mercaptan, halo, nitro, nitrilo, hydroxy, hydroxyalkyl, hydroxyaryl, phosphato, alkoxy, oxide, ether, ester (alkanoyloxy), carboxy, carbonyl, sulfonyl, sulfonic and amido groups; g is an integer from 0 to 2 and n is an integer from 0 to 20, with the proviso that if two of R₁, R₂, and R₃ are =O, then the other is not =O;

Formula II:



wherein Formula II is saturated or unsaturated;

wherein $q = 1$ to 100,000, wherein when $q = 2$ to 100,000, each monomer of formula II may be the same as or different from each other monomer of formula II;

wherein X is selected from the group consisting of N, C, O, P and S;

wherein Y is selected from the group consisting of O, N, S, P, C, -O-NH-, -O-CH₂-NH-,
-O-CH₂-O-, -NH-CH₂-NH-, -O-CH(CH₃)-NH-,
-NH-CH(CH₃)-NH-, -O-CH(CH₃)-O-, -NH-C(CH₃)₂-NH-, -O-S-,

71
-O-CH₂-S-, -NH-S-, -NH-CH₂-S-, and other mercaptan, phosphato, alkoxy, oxide, ether, esters (alkanoyloxy), carboxy, sulfonyl, sulfonic and amido groups;

wherein R₁, R₂, R₃, R₄, R₅, R₆, R₇ and R₈ may be the same or different and are independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, amino, thiol, mercaptan, halo, nitro, nitrilo, hydroxy, hydroxyalkyl, hydroxyaryl, phosphato, alkoxy, oxide, ether, ester (alkanoyloxy), carboxy, sulfonyl, sulfonic and amido groups; and

wherein a, b, c, d, e, m, n, and o are integers which may be the same or different and are independently selected from 0 to 2 for a, b, c, d, and e, and 0 to 5 for m, n, and o.

35. (Once amended) The composition of claim 30, wherein said composition comprises at least two compounds having the formula I or II, or salts[or derivatives] or esters thereof.

36. (Once amended) The composition of claim 35, wherein said composition comprises 2 to 5 compounds having the formula I or II, or salts[or derivatives] or esters thereof.

37. (Once amended) The composition of claim 35, wherein said composition comprises proline[or a derivative thereof].

40. (Once amended) The composition of claim 30, wherein said compound is selected from the group consisting of proline, glycine, 4-hydroxyproline, pipecolic acid, 4-methylmorpholine N-oxide, [betaine,] carnitine, ectoine, poly(2-ethyl-2-oxazoline) of average molecular weight about 50,000 to about 500,000 daltons, and poly(diallyldimethylammonium chloride) of average molecular weight about 100,000 to about 200,000 daltons.

41. (Once amended) The composition of claim 35, wherein said compound is selected from the group consisting of proline, glycine, 4-hydroxyproline, pipecolic acid, 4-methylmorpholine N-oxide, [betaine,] carnitine, ectoine, poly(2-ethyl-2-oxazoline) of average molecular weight about 50,000 to about 500,000 daltons, and poly(diallyldimethylammonium chloride) of average molecular weight about 100,000 to about 200,000 daltons.

43. (Once amended) The composition of claim 42, wherein said DNA polymerase is selected from the group consisting of *Taq*, *Tne*, *Tma*, *Pfu*, VENT™, DEEPVENT™ and *Tth* DNA polymerases, and mutants and variants [mutants, variants and derivatives] thereof.

44. (Once amended) The composition of claim 42, wherein said reverse transcriptase is selected from the group consisting of M-MLV reverse transcriptase, RSV reverse transcriptase, AMV reverse transcriptase, RAV reverse transcriptase, MAV reverse transcriptase and HIV reverse transcriptase, and mutants and variants [mutants, variants and derivatives] thereof.